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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/767,897

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Simon Ha

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12/04/2002

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EXAMINER

LEE, WILSON

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,897

Applicant(s)

HA ET AL.

Examiner

Wilson Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 and 84-91 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 37-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-36, 62-75, 84, 86 and 91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-9 and 37-61 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

The disclosure is objected to because of the following informalities:

Page 12, line 9, "Lines 60-66" is confusing because there is no lines 60-66.

Appropriate correction is required.

Claim Rejections – 35 U.S.C. 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20-36 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding Claim 20, a step of responding to an applied source of energy which varies over a nominal range by 100 percent is not described in the specification to enable one skill in the art to make/use the invention.

Claims 21-36 are indefinite by virtue of their dependency on claim 20.

Claim Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

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(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 10-19, 62-75, 84, 86, 91 are rejected under 35 U.S.C. 102(e) as being anticipated by Kosich (6,311,021) cited in IDS by applicant.

Regarding Claim 10, Kosich discloses a strobe comprising:

- a housing (See Col. 3, line 18);
- a gas filled tube (DS1);
- a capacitor (C9) coupled to the tube;
- a candela specifying element (SW1) (See Col. 5, lines 51 to Col. 6, line 14);
input terminals for receipt of voltages in a range of 10-30 volts (20-31 volts. It meets the range. See Col. 2, lines 43-44); and
- control circuitry (100) carried in the housing, coupled to the capacitor, the specifying element and the input terminals; wherein the control circuitry includes a capacitor voltage feedback circuit (See Col. 6, lines 15-32), and in response to a feedback signal there from, incrementally alters a capacitor charging parameter for a subsequent charging cycle (e.g. a portion of the voltage across C9 fed back to micro-controller U1) so as to produce the specified candela when the tube is energized (See Col. 6, lines 33-53).

Regarding Claim 11, Kosich discloses that the control circuitry stores parameters indicative of each specifiable candela (a plurality of selectable candela settings or intensity levels have been stored in the unit. See abstract).

Regarding Claim 12, Kosich discloses a circuitry (120) for energizing the tube in accordance with the specified candela.

Regarding Claim 13, Kosich discloses a circuitry (120) responsive to the voltage applied to the terminals (1, 2) for energizing the tube in accordance with the candela specifying element (See Col.4, lines 36-45).

Regarding Claim 14, Kosich discloses that the control circuitry (100) includes a programmed processor (110 or U1) and storage for output parameters associated with respective specifiable candela (candela settings).

Regarding Claim 15, Kosich discloses that the processor (U1) executes pre-stored instructions for altering a charging rate of the capacitor (e.g. increments of energy) in response to a selected output parameter (e.g. 15, 30, 75, 110 candela) (See Col. 5, line 51 to Col. 6, line 14).

Regarding Claim 16, Kosich discloses that the control circuitry illuminates the tube, at least at a first predetermined rate (e.g. a threshold value), and wherein the instructions alter the charging rate (e.g. prevent overcharging) between illuminations (See Col. 6, lines 15-32).

Regarding Claim 17, Kosich discloses that the instructions repetitively increase the charging rate (e.g. the rate at which increments of energy transferred to C9) between illuminations in response to a need to increase capacitor voltage (See Col. 5, line 51 to Col. 6, line 15).

Regarding Claim 18, Kosich discloses a constant frequency, variable duty cycle capacitor charging circuitry (PWM) (See Col. 6, lines 8-14 and Col. 9, lines 14-31).

Regarding Claim 19, Kosich discloses that the instructions alter the duty cycle in response to applied input voltage (See Col. 6, lines 8-14 and Col. 9, lines 32-42).

Regarding Claim 62, Kosich discloses a strobe comprising: a housing (See Col. 3, line 18); a trigger-able source (DS1) of illumination carried by the housing; control circuitry (100) carried by the housing and coupled to the source of illumination; an illumination output specifying element (SW1) (See Col. 5, lines 51 to Col. 6, line 14), coupled to the control circuitry, for specifying a desired light output; a power supply (120), carried by the housing, and coupled to the control circuit, wherein the supply includes input terminals for receipt of electrical energy of varying levels (15, 30, 75, 110 candela); and wherein the control circuitry is responsive to received levels of electrical energy varying over at least 8-30 volts (20-31 volts. It meets the range. See Col. 2, lines 43-44) to provide the specified output of illumination, and wherein the control circuitry (100) initiates each charging cycle by step-wise increasing a capacitor charging duty cycle parameter on a predetermined basis prior to altering that parameter in response to a feedback signal from the capacitor (See Col. 6, lines 15-53).

Regarding Claim 63, Kosich discloses that circuitry (U1) which senses synchronizing pulses received at the input terminals (See Col. 9, lines 1-56).

Regarding Claim 64, Kosich discloses an audible output device (horn) and circuitry (150) for driving the output device in response to sensed synchronization pulses (See Figure 3).

Regarding Claim 65, Kosich discloses a storage capacitor (C9) for accumulating electrical energy (the rate at which the increments of energy are transferred from L1 to

C9) for triggering the source and wherein the control circuitry includes executable instructions for adjusting a rate of charging the capacitor in response to a received level of electrical energy (See Col. 5, line 51 to Col. 6, line 15 and Col. 6, lines 33-53).

Regarding Claim 66, Kosich discloses instructions for increasing a charging duty cycle on a per cycle basis (frequency ramped up) (See Col. 10, lines 7-14).

Regarding Claim 67, Kosich discloses that circuitry (U1) which senses synchronizing pulses received at the input terminals (See Col. 9, lines 1-56).

Regarding Claim 68, Kosich discloses a strobe comprising: a housing (See Col. 3, line 18); a light source (DS1); a capacitor (C9) coupled to the source; a candela specifying element (SW1) (See Col. 5, lines 51 to Col. 6, line 14); input terminals for receipt of voltages in one of a range of 16-33 volts (20-31 volts. It meets the range. See Col. 2, lines 43-44); and control circuitry, carried in the housing coupled at least to the capacitor, and the specifying element (SW1) (See Col. 5, lines 51 to Col. 6, line 14) and instructions for charging the capacitor in a closed control loop (See Figure 2) in accordance with the specifying element and received voltage to drive the source to produce the specified candela. (See Col. 6, lines 15-53)

Regarding Claim 69, Kosich discloses that the control circuitry stores parameters indicative of each specifiable candela (a plurality of selectable candela settings or intensity levels have been stored in the unit. See abstract).

Regarding Claim 70, Kosich discloses a programmed processor (110 or U1) and storage for output parameters associated with respective specifiable candela (candela settings).

Regarding Claim 71, Kosich discloses that the processor (U1) executes pre-stored instructions for altering a charging rate of the capacitor (e.g. increments of energy) in response to a selected output parameter (e.g. 15, 30, 75, 110 candela) (See Col. 5, line 51 to Col. 6, line 14).

Regarding Claim 72, Kosich discloses that the control circuitry illuminates the tube, at least at a first predetermined rate (e.g. a threshold value), and wherein the instructions alter the charging rate (e.g. prevent overcharging) between illuminations (See Col. 6, lines 15-32).

Regarding Claim 73, Kosich discloses that the instructions repetitively increase the charging rate (e.g. the rate at which increments of energy transferred to C9) between illuminations in response to a need to increase capacitor voltage (See Col. 5, line 51 to Col. 6, line 15).

Regarding Claim 74, Kosich discloses a constant frequency, variable duty cycle capacitor charging circuitry (PWM) (See Col. 6, lines 8-14 and Col. 9, lines 14-31).

Regarding Claim 75, Kosich discloses that the instructions alter the duty cycle in response to applied input voltage (See Col. 6, lines 8-14 and Col. 9, lines 32-42).

Regarding Claim 84, Kosich discloses a strobe comprising: a housing (See Col. 3, line 18); a light source (DS1); a capacitor (C9) coupled to the source; a candela specifying element (SW1) (See Col. 5, lines 51 to Col. 6, line 14); input terminals for receipt of voltages in one of a range of 16-33 volts (20-31 volts. It meets the range. See Col. 2, lines 43-44); control circuitry (100), carried in the housing, coupled at least to the specifying element (SW1) (See Col. 5, lines 51 to Col. 6, line 14) and a feedback

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circuit, the feedback circuit is also coupled to the capacitor wherein the control circuit alters a capacitor charging parameter in response to at least one feedback signal from the feedback circuit so as to produce the specified candela output at the light source (See Col. 6, lines 15-53).

Regarding Claim 86, Kosich discloses that a capacitor drive circuitry (Q1) coupled between the control circuitry (100 or U1) and the capacitor (C9). (See Figure 2)

Regarding Claim 91, Kosich discloses a strobe comprising: a housing (See Col. 3, line 18); a light source (DS1); a capacitor (C9) coupled to the source; a candela specifying element (SW1) (See Col. 5, lines 51 to Col. 6, line 14); input terminals for receipt of voltages in one of a range 16-33 volts (20-31 volt. It meets the range. See Col. 2, lines 43-44); control circuitry (100), carried in the housing, coupled at least to the specifying element and a feedback circuit, the feedback circuit (See Col. 6, lines 15-32) is also coupled to the capacitor wherein the control circuit repetitively charges the capacitor during a plurality of cycles and during each such cycle that circuitry alters a capacitor charging parameter (See Col. 8, lines 14-18) in response to at least one feedback signal from the feedback circuit so as to produce the specified candela output at the light source (See Col. 6, lines 15-53).

Allowable subject matter

Claims 85, 87-90 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Remark

For clarification, applicant elects group II with traverse.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kosich et al. (5,400,009) discloses a synchronization circuit for visual/audio alarms.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (703) 306-3426. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956. Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.



Patent Examiner
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